

Sub A1)
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a humectant; and, if necessary, an auxiliary agent for manufacturing a pharmaceutical preparation.

5 ② The stabilized solid composition containing a 4-amino-3-substituted-butanoic acid derivative as claimed in claim 1 wherein said humectant comprises one or more of the compounds selected from ethylene glycol, propylene glycol, butylene glycol, sorbitol and glycerol and an aliphatic acid ester thereof.

10 ③ The stabilized solid composition containing a 4-amino-3-substituted-butanoic acid derivative as claimed in claim 1 wherein said humectant is ethylene glycol.

15 ④ The stabilized solid composition containing a 4-amino-3-substituted-butanoic acid derivative as claimed in claim 1 wherein said humectant is propylene glycol.

20 ⑤ The stabilized solid composition containing a 4-amino-3-substituted-butanoic acid derivative as claimed in claim 1 wherein said humectant is butylene glycol.

20 ⑥ The stabilized solid composition containing a 4-amino-3-substituted-butanoic acid derivative as claimed in claim 1 wherein said humectant is glycerol or an aliphatic acid ester thereof.

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Sub 10 A2 7 (7) The stabilized solid composition containing a 4-amino-3-substituted-butanoic acid derivative as claimed in claim 1 wherein said humectant is sorbitol.

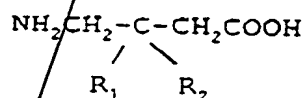
5 (8) The stabilized solid composition containing a 4-amino-3-substituted-butanoic acid derivative as claimed in claim 1 wherein a total amount of said humectant is 0.01 - 25% by weight relative to the 4-amino-3-substituted-butanoic acid derivative.

Sub 10 A2 7 (9) The stabilized solid composition containing a 4-amino-3-substituted-butanoic acid derivative as claimed in claim 1 wherein a total amount of said humectant is 0.01 - 25% by weight relative to a total amount of the 4-amino-3-substituted-butanoic acid derivative and an auxiliary agent for manufacturing a pharmaceutical preparation.

15 (10) The stabilized solid composition containing a 4-amino-3-substituted-butanoic acid derivative as claimed in claim 1 wherein it is a solid pharmaceutical preparation of gabapentin, pregabalin, baclofen, 3-aminomethyl-4-cyclohexyl-butanoic acid, 3-aminomethyl-5-cyclohexyl
20 pentanoic acid, 3-aminomethyl-4-phenyl-butanoic acid or 3-aminomethyl-5-phenyl-pentanoic acid.

11. The stabilized solid composition containing a 4-amino-3-substituted-butanoic acid derivative as claimed in claim 10 wherein it is a solid pharmaceutical preparation in the dosage form of tablets, powders, granules or capsules.

12. A process for the preparation of a solid composition containing a 4-amino-3-substituted-butanoic acid derivative having the general formula



wherein,

R_1 is a hydrogen atom, a hydroxyl group, a methyl group or an ethyl group;

R_2 is a monovalent group selected from:

a straight or branched alkyl group of 3 - 8 carbon atoms;

a straight or branched alkylene group of 3-8 carbon atoms;

a straight or branched alkyl group of 3 - 8 carbon atoms which is mono- or di-substituted with a halogen atom, a trifluoromethyl group, a hydroxyl group, an alkoxy group, an alkylthio group, an amino group, a nitro group, an oxo group, a carboxyl group or a carboalkoxy group;

a/cycloalkyl group of 3 - 8 carbon atoms;

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a cycloalkyl group of 3 - 8 carbon atoms which is mono-, di- or tri-substituted with a halogen atom, a trifluoromethyl group, a hydroxyl group, an alkyl group, an alkoxy group, an alkylthio group, an amino group, a nitro group, an oxo group, a carboxyl group or a carboalkoxy group;

a condensed ring group formed by ortho-fusion of a phenyl ring with a cycloalkyl group of 4 - 8 carbon atoms;

a condensed ring group formed by ortho-fusion of a phenyl ring with a cycloalkyl group of 4 - 8 carbon atoms wherein said phenyl ring is mono-, di- or tri-substituted with a halogen atom, a trifluoromethyl group, a hydroxyl group, an alkyl group, an alkoxy group, an alkylthio group, an amino group, a nitro group, a carboxyl group or a carboalkoxy group;

a condensed ring group formed by ortho-fusion of a phenyl ring with a cycloalkenyl group of 5 - 8 carbon atoms or a cycloalkanedieryl group of 5 - 8 carbon atoms;

a condensed ring group formed by ortho-fusion of a phenyl ring with a cycloalkenyl group of 5 - 8 carbon atoms or a cycloalkanedieryl group of 5 - 8 carbon atoms wherein said phenyl ring is mono-, di- or tri-substituted with a halogen atom, a trifluoromethyl group, a hydroxyl group, an

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alkyl group, an alkoxy group, an alkylthio group, an amino group, a nitro group, a carboxyl group or a carboalkoxy group;

an alkylcycloalkyl group wherein said cycloalkyl has 3 - 8 carbon atoms and is linked to an alkylene group having 1 - 4 carbon atoms optionally interrupted with -O-, -S- or -SS-;

an alkylcycloalkyl group wherein said cycloalkyl has 3 - 8 carbon atoms, is linked to an alkylene group having 1 - 4 carbon atoms optionally interrupted with -O-, -S- or -SS- and is mono-, di- or tri-substituted with a halogen atom, a trifluoromethyl group, a hydroxyl group, an alkyl group, an alkoxy group, an alkylthio group, an amino group, a nitro group, an oxo group, a carboxyl group or a carboalkoxy group;

a cycloalkyl group of 5 - 8 carbon atoms wherein one of the methylene groups (-CH₂-) is replaced by -O-, -NH-, -S-, -SO- or -S(O)₂-;

a cycloalkyl group of 5 - 8 carbon atoms wherein one of the methylene groups (-CH₂-) is replaced by -O-, -NH-, -S-, -SO- or -S(O)₂-, and one or two of the unsubstituted methylene groups (-CH₂-) are mono- or di-substituted with a halogen atom, a trifluoromethyl group, a hydroxyl group, an alkyl group, an alkoxy group, an alkylthio group, an amino

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group, a nitro group, an oxo group, a carboxyl group or a carboalkoxy group;

Sub A3) a cycloalkenyl group of 5 - 8 carbon atoms or a cycloalkanedieryl group of 5 - 8 carbon atoms, one of the methylene groups (-CH₂-) in said cycloalkenyl ring or cycloalkanedieryl ring being replaced by -O-, -NH-, =N-, -S-, -SO- or -S(O)₂-;

a cycloalkenyl group of 5 - 8 carbon atoms or a cycloalkanedieryl group of 5 - 8 carbon atoms, one of the methylene groups (-CH₂-) in said cycloalkenyl ring or cycloalkanedieryl ring being replaced by -O-, -NH-, =N-, -S-, -SO- or -S(O)₂-, and one or two of the unsubstituted methylene groups (-CH₂-) being mono- or di-substituted with a halogen atom, a trifluoromethyl group, a hydroxyl group, an alkyl group, an alkoxy group, an alkylthio group, an amino group, a nitro group, an oxo group, a carboxyl group or a carboalkoxy group;

a condensed ring group formed by ortho-fusion of a phenyl ring with a cycloalkyl group of 5 - 8 carbon atoms wherein one of the methylene groups (-CH₂-) is replaced by -O-, -NH-, -S-, -SO- or -S(O)₂-;

a condensed ring group formed by ortho-fusion of a phenyl ring with a cycloalkyl group of 5 - 8 carbon atoms

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5 wherein one of the methylene groups ($-\text{CH}_2-$) is replaced by
 $-\text{O}-$, $-\text{NH}-$, $-\text{S}-$, $-\text{SO}-$ or $-\text{S}(\text{O})_2-$, said phenyl group being
mono- or di-substituted with a halogen atom, a
trifluoromethyl group, a hydroxyl group, an alkyl group, an
alkoxy group, an alkylthio group, an amino group, a nitro
group, a carboxyl group or a carboalkoxy group;

10 a condensed ring group formed by ortho-fusion of a
phenyl ring with a cycloalkenyl group of 5 - 8 carbon atoms
or a cycloalkanedieryl group of 5 - 8 carbon atoms, one of
the methylene groups ($-\text{CH}_2-$) in said cycloalkenyl ring or
cycloalkanedieryl ring being replaced by $-\text{O}-$, $-\text{NH}-$, $=\text{N}-$, $-\text{S}-$,
 $-\text{SO}-$ or $-\text{S}(\text{O})_2-$;

15 a condensed ring group formed by ortho-fusion of a
phenyl ring with a cycloalkenyl group of 5 - 8 carbon atoms
or a cycloalkanedieryl group of 5 - 8 carbon atoms, one of
the methylene groups ($-\text{CH}_2-$) in said cycloalkenyl ring or
cycloalkanedieryl ring being replaced by $-\text{O}-$, $-\text{NH}-$, $=\text{N}-$, $-\text{S}-$,
 $-\text{SO}-$ or $-\text{S}(\text{O})_2-$, said phenyl ring being mono- or
20 di-substituted with a halogen atom, a trifluoromethyl group,
a hydroxyl group, an alkyl group, an alkoxy group, an
alkylthio group, an amino group, a nitro group, a carboxyl
group or a carboalkoxy group;

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5 an alkylcycloalkyl group wherein said cycloalkyl has 5 - 8 carbon atoms and is linked to an alkylene group having 1 - 4 carbon atoms optionally interrupted with -O-, -S- or -SS-, one of the methylene groups (-CH₂-) in said cycloalkyl ring being replaced by -O-, -NH-, -S-, -SO- or -S(O)₂-;

10 an alkylcycloalkyl group wherein said cycloalkyl has 5 - 8 carbon atoms and is linked to an alkylene group having 1 - 4 carbon atoms optionally interrupted with -O-, -S- or -SS-, and one of the methylene groups (-CH₂-) in said cycloalkyl ring being replaced by -O-, -NH-, -S-, -SO- or -S(O)₂- and one or two of the unsubstituted methylene groups (-CH₂-) being mono-, di- or tri-substituted with a halogen atom, a trifluoromethyl group, a hydroxyl group, an alkyl group, an alkoxy group, an alkylthio group, an amino group, 15 a nitro group, an oxo group, a carboxyl group or a carboalkoxy group;

a phenyl or naphthyl group;

a phenyl group substituted with a methylenedioxy group;

20 a phenyl or naphthyl group which is mono-, di- or tri-substituted with a halogen atom, a trifluoromethyl group, a hydroxyl group, an alkyl group, an alkoxy group, an amino group, a nitro group, a carboxyl group, a phenoxy

group, a phenylmethoxy group, a phenylmethoxy group
wherein said phenyl ring is mono-substituted with a halogen
atom, trifluoromethyl group, an alkoxy group, an amino
group, a nitro group, a carboxyl group or a carboalkoxy
group, a cycloalkylmethoxy group having 5 - 8 carbon atoms
in the cycloalkyl ring, a cycloalkenylmethoxy group having 5
- 8 carbon atoms in the cycloalkenyl ring, a
cycloalkanedienylmethoxy group having 5 - 8 carbon atoms in
the cycloalkanedienyl ring, a cycloalkylmethoxy group
wherein one of the methylene groups (-CH₂-) in said
cycloalkyl ring having 5 - 8 carbon atoms is replaced by
-O-, -NH-, -S-, -SO- or -S(O)₂-, a cycloalkenylmethoxy group
wherein one of the methylene groups (-CH₂-) in said
cycloalkenyl ring having 5 - 8 carbon atoms is replaced by
-O-, -NH-, =N-, -S-, -SO- or -S(O)₂-, a cycloalkanedienyl-
methoxy group wherein one of the methylene groups (-CH₂-) in
said cycloalkanedienyl ring having 5 - 8 carbon atoms is
replaced by -O-, -NH-, =N-, -S-, -SO- or -S(O)₂- group, a
cycloalkylmethoxy group having 5 - 8 carbon atoms in the
cycloalkyl ring wherein said cycloalkyl ring is
mono-substituted with a halogen atom, trifluoromethyl group,
a hydroxy group, an alkyl group, an alkoxy group, an amino
group, a nitro group, a carboxyl group or a carboalkoxy

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5 group and one of the methylene groups (-CH₂-) in said cycloalkyl ring is replaced by -O-, -NH-, -S-, -SO- or -S(O)₂-, a cycloalkenylmethoxy group having 5 - 8 carbon atoms in the cycloalkenyl ring wherein said cycloalkenyl ring is mono-substituted with a halogen atom, a trifluoromethyl group, a hydroxy group, an alkyl group, an alkoxy group, an amino group, a nitro group, an oxo group, a carboxyl group or a carboalkoxy group and one of the methylene groups (-CH₂-) in said cycloalkenyl ring is

10 replaced by -O-, -NH-, =N-, -S-, -SO- or -S(O)₂-, or a cycloalkanediethylmethoxy group having 5 - 8 carbon atoms in the cycloalkanediethyl ring wherein said cycloalkanediethyl ring is mono-substituted with a halogen atom, a trifluoromethyl group, a hydroxyl group, an alkyl group, an alkoxy group, an amino group, a nitro group, an oxo group, a

15 carboxyl group or a carboalkoxy group and one of the methylene groups (-CH₂-) in said cycloalkanediethyl ring is replaced by -O-, -NH-, =N-, -S-, -SO- or -S(O)₂-;

20 an alkylphenyl group wherein said phenyl group is linked to an alkylene group having 1 - 4 carbon atoms optionally interrupted with -O-, -S- or -SS-;

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Sub A3)
an alkyl-O-, -S- or -SS-phenyl group wherein said phenyl group is linked to an alkylene group having 1 - 4 carbon atoms via -O-, -S- or -SS-;

an -O-, -S- or -SS-phenyl group;

5 a diphenylamino group:

an alkylphenyl group wherein said phenyl group is linked to an alkylene group having 1 - 4 carbon atoms optionally interrupted with -O-, -S- or -SS- and mono-, di- or tri-substituted with a halogen atom, a trifluoromethyl group, a hydroxyl group, an alkyl group, an alkoxy group, an amino group, a nitro group or a carboxyl group;

an alkyl-O-, -S- or -SS-phenyl group wherein said phenyl group is linked to an alkylene group having 1 - 4 carbon atoms via -O-, -S- or -SS- and mono-, di- or tri-substituted with a halogen atom, a trifluoromethyl group, a hydroxyl group, an alkyl group, an alkoxy group, an amino group, a nitro group or a carboxyl group;

an -O-, -S- or -SS-phenyl group wherein said phenyl group is mono-, di- or tri-substituted with a halogen atom, a trifluoromethyl group, a hydroxyl group, an alkyl group, an alkoxy group, an amino group, a nitro group or a carboxyl group;

or

Sub A3 } R₁ and R₂, together with the carbon atom to which they are attached, may form a divalent group selected from:

a cycloalkylidene group of 5 - 8 carbon atoms;

5 a cycloalkylidene group of 5 - 8 carbon atoms which is mono-, di-, tri- or tetra-substituted with a halogen atom, a trifluoromethyl group, a hydroxyl group, an alkyl group, an alkoxy group, an alkylthio group, a cycloalkyl group, a phenyl group, an amino group, a nitro group or a carboxyl group;

10 a cycloalkylidene group of 5 - 8 carbon atoms wherein one of the methylene groups (-CH₂-) in said cycloalkyl ring is replaced by -O-, -NH-, -S-, -SO- or -S(O)₂-;

15 a cycloalkylidene group of 5 - 8 carbon atoms wherein one of the methylene groups (-CH₂-) in said cycloalkyl ring is replaced by -O-, -NH-, -S-, -SO- or -S(O)₂- group and one or more of the unsubstituted methylene groups (-CH₂-) in said cycloalkyl ring are mono-, di-, tri- or tetra-substituted with a halogen atom, a trifluoromethyl group, a hydroxyl group, an alkyl group, an alkoxy group, an alkylthio group, an amino group, a nitro group, an oxo group, a carboxyl group or a carboalkoxy group;

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Sub A3 } a cycloalkenylidene group of 5 - 8 carbon atoms or a cycloalkanedienylidene group of 5 - 8 carbon atoms;

5 a cycloalkenylidene group of 5 - 8 carbon atoms or a cycloalkanedienylidene group of 5 - 8 carbon atoms which is mono-, di-, tri- or tetra-substituted with a halogen atom, a trifluoromethyl group, a hydroxyl group, an alkyl group, an alkoxy group, an alkylthio group, a cycloalkyl group, a phenyl group, an amino group, a nitro group, an oxo group, a carboxyl group or a carboalkoxy group;

10 a cycloalkenylidene group of 5 - 8 carbon atoms or a cycloalkanedienylidene group of 5 - 8 carbon atoms wherein one of the methylene groups (-CH₂-) in said cycloalkenyl ring or cycloalkanedienyl ring is replaced by -O-, -NH-, =N-, -S-, -SO- or -S(O)₂-;

15 a cycloalkenylidene group of 5 - 8 carbon atoms or a cycloalkanedienylidene group of 5 - 8 carbon atoms wherein one of the methylene groups (-CH₂-) in said cycloalkenyl ring or cycloalkanedienyl ring is replaced by -O-, -NH-, =N-, -S-, -SO- or -S(O)₂- group and one or more of the unsubstituted
20 methylene groups (-CH₂-) in said cycloalkenyl ring or cycloalkanedienyl ring are mono-, di-, tri- or tetra-substituted with a halogen atom, a trifluoromethyl group, a hydroxyl group, an alkyl group, an alkoxy group, an

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alkylthio group, an amino group, a nitro group, an oxo group, a carboxyl group or a carboalkoxy group;

a condensed ring group formed by ortho-fusion of a phenyl ring with a cycloalkylidene group of 4 - 8 carbon atoms;

a condensed ring group formed by ortho-fusion of a phenyl ring with a cycloalkylidene group of 4 - 8 carbon atoms, said phenyl ring being mono-, di-, tri- or tetra-substituted with a halogen atom, a trifluoromethyl group, a hydroxyl group, an alkyl group, an alkoxy group, an alkylthio group, an amino group, a nitro group, a carboxyl group or a carboalkoxy group;

a condensed ring group formed by ortho-fusion of a phenyl ring with a cycloalkenylidene group of 5 - 8 carbon atoms or a cycloalkanedienylidene group of 5 - 8 carbon atoms;

a condensed ring group formed by ortho-fusion of a phenyl ring with a cycloalkenylidene group of 5 - 8 carbon atoms or a cycloalkanedienylidene group of 5 - 8 carbon atoms, said phenyl ring being mono- or di-substituted with a halogen atom, a trifluoromethyl group, a hydroxyl group, an alkyl group, an alkoxy group, an alkylthio group, an amino group, a nitro group, a carboxyl group or a carboalkoxy group, which comprises combining the 4-amino-3-substituted-

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butanoic acid derivative with a humectant and, if necessary,
an auxiliary agent for manufacturing a pharmaceutical
preparation.

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13. The process as claimed in claim 12 wherein said
humectant comprises one or more of the compounds selected
from ethylene glycol, propylene glycol, butylene glycol,
sorbitol and glycerol and an aliphatic acid ester thereof.

10 14. The process as claimed in claim 13 wherein said
composition is a solid preparation of gabapentin,
pregabalin, baclofen, 3-aminomethyl-4-cyclohexyl-butanoic
acid, 3-aminomethyl-5-cyclohexyl pentanoic acid, 3-
aminomethyl-4-phenyl-butanoic acid or 3-aminomethyl-5-
phenyl-pentanoic acid.

15 15. The process as claimed in claim 14 wherein a solid
pharmaceutical preparation containing a 4-amino-3-
substituted-butanoic acid derivative is a pharmaceutical
preparation in the dosage form of tablets, powders, granules
or capsules.

20 16. A stabilized solid composition containing a 4-
amino-3-substituted-butanoic acid derivative as claimed in
claim 1 wherein it is further combined with a neutral amino
acid.

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17.

The stabilized solid composition containing a 4-amino-3-substituted-butanoic acid derivative as claimed in claim 16 wherein said neutral amino acid is one or more of the neutral amino acids selected from L-leucine, L-isoleucine, L-valine, L-alanine, D-leucine, D-isoleucine, D-valine, D-alanine, DL-leucine, DL-isoleucine, DL-valine, DL-alanine and glycine.

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